

#10

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FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
0942.2850004/RWE/BJDCPA OF APPLICATION NO.  
09/177,387APPLICANT  
HARTLEY *et al.*FILING DATE  
October 23, 1998GROUP  
1636

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
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<i>JS</i>	AH1	4,959,317	09/25/1990	Sauer, B.L.	435	<del>472.5</del> <i>402</i>	04/29/1987
<i>JS</i>	AI1	5,658,772	08/19/1997	Odell, J.T. <i>et al.</i>	<del>435</del> <i>800</i>	<del>172.3</del> <i>208</i>	07/27/1994
<i>JS</i>	AJ1	5,677,170	10/14/1997	Devine, S.E. <i>et al.</i>	435	320.1	03/02/1994
	AK1	5,677,177	10/14/1997	Wahl, G.M. <i>et al.</i>	435	325	06/07/1995

## FOREIGN PATENT DOCUMENTS

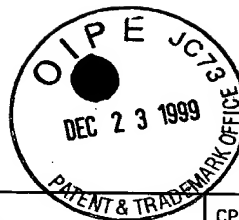
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<i>JS</i>	AL2	EP 0 160 571	11/06/1985	Europe	—	—	Yes No
<i>JS</i>	AM2	WO 92/20791	11/26/1992	<del>WIPO</del> <i>PCT</i>	—	—	Yes No
<i>JS</i>	AN2	WO 93/15191	08/05/1993	<del>WIPO</del> <i>PCT</i>	—	—	Yes No
<i>JS</i>	AO2	WO 94/17176	08/04/1994	<del>WIPO</del> <i>PCT</i>	—	—	Yes No
<i>JS</i>	AP2	WO 97/09436	03/13/1997	<del>WIPO</del> <i>PCT</i>	—	—	Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR		
<i>JS</i>	AS	<u>24</u>	Abremski, K., <i>et al.</i> , "Studies on the Properties of P1 Site-specific Recombination: Evidence for Topologically Unlinked Products Following Recombination," <i>Cell</i> 32:1301-1311 (1983).
<i>JS</i>	AT	<u>24</u>	Anton, M. and Graham, F. L., "Site-Specific Recombination Mediated by an Adenovirus Vector Expressing the Cre Recombinase Protein: a Molecular Switch for Control of Gene Expression," <i>J. Virol.</i> 69:4600-4606 (August 1995).

EXAMINER *Smagial*DATE CONSIDERED  
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<i>SH</i>	AA2	5,723,765	03/03/1998	Oliver <i>et al.</i>	800	<del>285</del> 268	06/07/1995
<i>SH</i>	AB2	5,733,743	03/31/1998	Johnson <i>et al.</i>	435	320.1	06/10/1996
<i>SH</i>	AC2	5,830,707	11/03/1998	Bushman, F.D.	435	69.7	06/05/1995
<i>SH</i>	AD2	5,843,772	12/01/1998	Devine, S.E., <i>et al.</i>	435	69.1	11/18/1994
<i>SH</i>	AE2	5,858,657	01/12/1999	Winter <i>et al.</i>	435	6	06/07/1995
<i>SH</i>	AF2	5,871,907	02/16/1999	Winter <i>et al.</i>	435	6	03/31/1994
<i>SH</i>	AG2	5,874,259	02/23/1999	Szybalski, W.	435	91.1	11/21/1997
<i>SH</i>	AH2	5,919,676	07/06/1999	Graham, F.L. <i>et al.</i>	435	<del>472.3</del> 414	06/07/1995
<i>SH</i>	AI2	5,928,914	07/27/1999	Leboulch, P. <i>et al.</i>	435	<del>472.3</del> 490	11/05/1996
<i>SH</i>	AJ2	5,916,804	06/29/1999	Bushman, F.D.	435	325	04/17/1998
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## FOREIGN PATENT DOCUMENTS

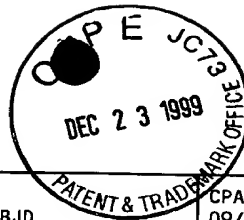
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<i>SH</i>	AM3	WO 97/32481	09/12/1997	<del>WIPO</del> PCT	—	—	Yes No
<i>SH</i>	AN3	WO 98/10086	03/12/1998	<del>WIPO</del> PCT	—	—	Yes No
<i>SH</i>	AO3	WO 99/10488	03/04/1999	<del>WIPO</del> PCT	—	—	Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

<i>SH</i>	AR	<u>25</u>	Bayley, C. C., <i>et al.</i> , "Exchange of gene activity in transgenic plants catalyzed by the Cre-lox site-specific recombination system," <i>Plant Mol. Biol.</i> 18:353-361 (1992).
<i>SH</i>	AS	<u>25</u>	Bethke, B. and Sauer, B., "Segmental genomic replacement by Cre-mediated recombination: genotoxic stress activation of the p53 promoter in single-copy transformants," <i>Nucl. Acids Res.</i> 25:2828-2834 (July 1997).
<i>SH</i>	AT	<u>25</u>	Bernard, P., <i>et al.</i> , "Positive-selection vectors using the F plasmid <i>ccdB</i> killer gene," <i>Gene</i> 148:71-74 (October 1994).

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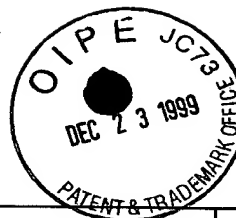
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## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

af	AR	<u>26</u>	Betz, U. A. K., <i>et al.</i> , "Bypass of lethality with mosaic mice generated by Cre-loxP-mediated recombination," <i>Curr. Biol.</i> 6:1307-1316 (October 1996).
of	AS	<u>26</u>	Bhandari, P and Gowrishankar, J., "An <i>Escherichia coli</i> host Strain Useful for Efficient Overproduction of Cloned Gene Products with Nacl as the Inducer," <i>J. Bacteriol.</i> 179:4403-4406 (July 1997).
at	AT	<u>26</u>	Bochner, B. R., <i>et al.</i> , "Positive Selection for Loss of Tetracycline Resistance," <i>J. Bacteriol.</i> 143:926-933 (1980).

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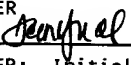
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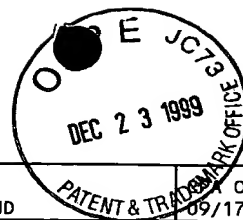
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	AR	<u>27</u>	Brunelli, J. P. and Pall, M. L., "A Series of Yeast/ <i>Escherichia coli</i> $\lambda$ Expression Vectors Designed for Directional Cloning of cDNAs and <i>cre/lox</i> -Mediated Plasmid Excision," <i>Yeast</i> 9:1309-1318 (1993).
	AS	<u>27</u>	Buchholz, F., <i>et al.</i> , "Different thermostabilities of FLP and Cre recombinases: implications for applied site-specific recombination," <i>Nucl. Acids Res.</i> 24:4256-4262 (November 1996).
	AT	<u>27</u>	Bushman, W., <i>et al.</i> , "Control of Directionality in Lambda Site Specific Recombination," <i>Science</i> 230:906-911 (1985).

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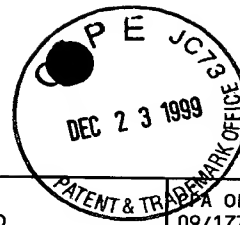
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AR	28	Chapin, S.J., <i>et al.</i> , "Differential Expression of Alternatively Spliced Forms of MAP4: a Repertoire of Structurally Different Microtubule-binding Domains," <i>Biochem.</i> 34:2289-2301 (February 1995).
AS	28	Craig, N.L. and Nash, H.A., "The Mechanism of Phage Lambda Site-specific Recombination: Site-specific Breakage of DNA by Int Topoisomerase," <i>Cell</i> 35:795-803 (1983).
AT	28	Dale, E. C. and Ow, D. W., "Intra- and intermolecular site-specific recombination in plant cells mediated by bacteriophage P1 recombinase," <i>Gene</i> 91:79-85 (1990).

EXAMINER <i>Shampel</i>	DATE CONSIDERED 3/1/92
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	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>29</u>	Dale, E. C. and Ow, D. W., "Gene transfer with subsequent removal of the selection gene from the host genome," <i>Proc. Natl. Acad. Sci. USA</i> 88:10558-10562 (1991).
	AS	<u>29</u>	Dang, D. T. and Perrimon, N., "Use of a Yeast Site-Specific Recombinase to Generate Embryonic Mosaics in <i>Drosophila</i> ," <i>Develop. Genetics</i> 13:367-375 (1992).
	AT	<u>29</u>	Dymecki, S. M., "A modular set of <i>Fip</i> , <i>FRT</i> and <i>lacZ</i> fusion vectors for manipulating genes by site-specific recombination," <i>Gene</i> 171:197-201 (June 1996).

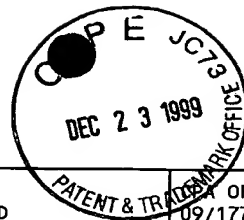
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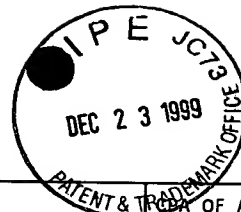
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	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>30</u>	Fiering, S., <i>et al.</i> , "An 'in-out' strategy using gene targeting and FLP recombinase for the functional dissection of complex DNA regulatory elements: Analysis of the $\beta$ -globin locus control region," <i>Proc. Natl. Acad. Sci. USA</i> 90:8469-8473 (1993).
	AS	<u>30</u>	Gage, P.J. <i>et al.</i> , "A Cell-Free Recombination System for Site-Specific Integration of Multigenic Shuttle Plasmids into the Herpes Simplex Virus Type 1 Genome," <i>J. Virol.</i> 66:5509-5515 (1992).
	AT	<u>30</u>	Golic, K. G. and Lindquist, S., "The FLP Recombinase of Yeast Catalyzes Site-Specific Recombination in the Drosophila Genome," <i>Cell</i> 59:499-509 (1989).

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3/1/99

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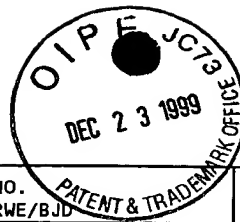
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

<i>AR</i>	AR	<u>31</u>	Gu, H. <i>et al.</i> , "Deletion of a DNA polymerase beta gene segment in T cells using cell type-specific gene targeting," <i>Science</i> 265:103-106 (July 1994).
<i>AS</i>	AS	<u>31</u>	Hoekstra, M. F., <i>et al.</i> , "Shuttle Mutagenesis: Bacterial Transposons for Genetic Manipulations in Yeast," <i>Meth. Enzymol.</i> 194:329-342 (1991).
<i>AT</i>	AT	<u>31</u>	Kanaar, R., <i>et al.</i> , "Gin-Mediated Recombination of Catenated and Knotted DNA Substrates: Implications for the Mechanism of Interaction Between <i>Cis</i> -Acting Sites," <i>Cell</i> 58:147-159 (1989).

EXAMINER *Samuel*DATE CONSIDERED  
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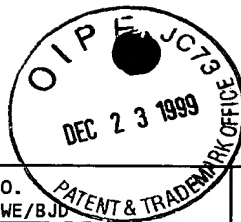
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## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

SA	AR	32	Kozak, M., "Comparison of Initiation of Protein Synthesis in Procaryotes, Eucaryotes, and Organelles," <i>Microbiol. Rev.</i> 47:1-45 (1983).
SA	AS	32	Kozak, M., "An analysis of 5'-noncoding sequences from 699 vertebrate messenger RNAs," <i>Nucl. Acids Res.</i> 15:8125-8132 (1987).
SA	AT	32	Kozak, M., "Structural features in eukaryotic mRNAs that modulate the initiation of translation," <i>J. Biol. Chem.</i> 266:19867-19870 (1991).

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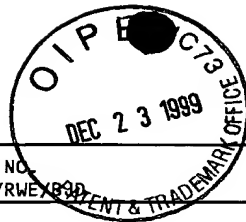
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ax	AR	<u>33</u>	Kühn, R., <i>et al.</i> , "Inducible Gene Targeting in Mice," <i>Science</i> 269:1427-1429 (September 1995).
ax	AS	<u>33</u>	Lander, E.S., "The New Genomics: Global Views of Biology," <i>Science</i> 274:536-539 (October 1996).
ax	AT	<u>33</u>	Lebreton, B., <i>et al.</i> , "Mutations That Improve the Binding of Yeast FLP Recombinase to Its Substrate," <i>Genet.</i> 118:393-400 (1988).

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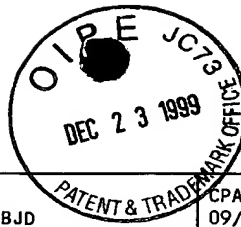
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	AR	<u>34</u>	Lee, E. C., <i>et al.</i> , "Genetic Analysis of <i>Escherichia coli</i> Integration Host Factor Interactions with Its Bacteriophage $\lambda$ H' Recognition Site," <i>J. Bacteriol.</i> 173:609-617 (1991).
	AS	<u>34</u>	Matsuzaki, H., <i>et al.</i> , "Chromosome Engineering in <i>Saccharomyces cerevisiae</i> by Using a Site-Specific Recombination System of a Yeast Plasmid," <i>J. Bacteriol.</i> 172:610-618 (1990).
	AT	<u>34</u>	McCarthy, JE and Brimacombe, R., "Prokaryotic translation: the interactive pathway leading to initiation," <i>Trends Genet.</i> 10:402-407 (November 1994).

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FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0942.2850004/RWE/BJD	CPA OF APPLICATION NO. 09/177,387
	APPLICANT HARTLEY <i>et al.</i>	
	FILING DATE October 23, 1998	GROUP 1636

U.S. PATENT DOCUMENTS							
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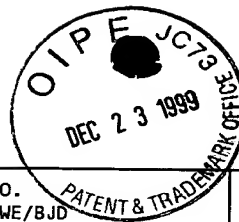
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

<i>deg</i>	AR	<u>35</u>	Miki, T. <i>et al.</i> , "Control of Segregation of Chromosomal Dna by Sex Factor F in <i>Escherichia coli</i> . Mutants of Dna Gyrase Subunit a Suppress letd (ccdb) Product Growth Inhibition," <i>J. Mol. Biol.</i> 225:39-52 (1992).
<i>deg</i>	AS	<u>35</u>	Mizuuchi, M. and Mizuuchi, K., "The extent of DNA sequence required for a functional bacterial attachment site of phage lambda," <i>Nucl. Acids Res.</i> 13:1193-1208 (1985).
<i>deg</i>	AT	<u>35</u>	Mozo, T. and Hooykaas, P. J. J., "Design of a novel system for the construction of vectors for Agrobacterium-mediated plant transformation," <i>Mol. Gen. Genet</i> 236:1-7 (1992).

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FORM PTO-1449

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0942.2850004/RWE/BJDCPA OF APPLICATION NO.  
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HARTLEY *et al.*FILING DATE  
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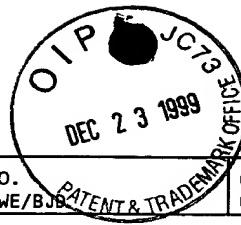
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>36</u>	Nagaraja, R. and Weisberg, R. A., "Specificity Determinants in the Attachment Sites of Bacteriophages HK022 and $\lambda$ ," <i>J. Bacteriol.</i> 172:6540-6550 (1990).
	AS	<u>36</u>	Nash, H.A. and Robertson, CA, "Purification and Properties of the <i>Escherichia coli</i> Protein Factor Required for $\lambda$ Integrative Recombination," <i>J. Biol. Chem.</i> 256:9246-9253 (1981).
	AT	<u>36</u>	Nash, H.A., "Bending and supercoiling of DNA at the attachment site of bacteriophage $\lambda$ ," <i>Trends Biochem. Sci</i> 15:222-227 (1990).

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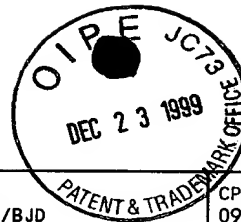
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## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	37	Numrych, T. E., <i>et al.</i> , "A comparison of the effects of single-base and triple-base changes in the integrase arm-type binding sites on the site-specific recombination of bacteriophage lambda," <i>Nucl. Acids Res.</i> 18:3953-3959 (1990).
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AT	37	Orban, P. C., <i>et al.</i> , "Tissue- and site-specific DNA recombination in transgenic mice," <i>Proc. Natl. Acad. Sci. USA</i> 89:6861-6865 (1992).

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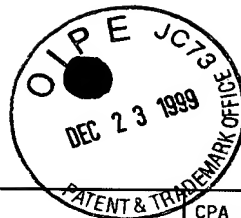
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## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	38	Peakman, T. C., <i>et al.</i> , "Highly efficient generation of recombinant baculoviruses by enzymatically mediated site-specific <i>in vitro</i> recombination," <i>Nucl. Acids Res.</i> 20:495-500 (1992).
AS	38	Pichel, J. G., <i>et al.</i> , "Timing of SV40 oncogene activation by site-specific recombination determines subsequent tumor progression during murine lens development," <i>Gene</i> 8:3333-3342 (1993).
AT	38	Pierce, J. C., <i>et al.</i> , "A positive selection vector for cloning high molecular weight DNA by the bacteriophage P1 system: Improved cloning efficacy," <i>Proc. Natl. Acad. Sci. USA</i> 89:2056-2060 (1992).

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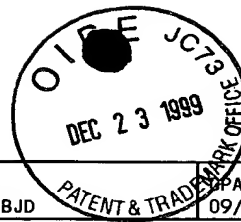
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>39</u>	Podhajska, A. J., <i>et al.</i> , "Control of cloned gene expression by promoter inversion in vivo: construction of the heat-pulse-activated <i>att-nutL-p-att-N</i> module," <i>Gene</i> 40:163-168 (1985).
	AS	<u>39</u>	Prasad, P. V., <i>et al.</i> , "Substrate Recognition by the 2 $\mu$ m Circle Site-Specific Recombinase: Effect of Mutations within the Symmetry Elements of the Minimal Substrate," <i>Mol. Cell. Biol.</i> 6:4329-4334 (1986).
	AT	<u>39</u>	Sadowski, P.D., "The F1p Recombinase of the 2-microns Plasmid of <i>Saccharomyces cerevisiae</i> ," <i>Prog. Nucl. Acid Res. Mol. Biol.</i> 51:53-91 (1995).

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CLASS OF APPLICATION NO.  
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	AN						Yes No
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## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>40</u>	Sauer, B., "Functional Expression of the <i>cre-lox</i> Site-Specific Recombination System in the Yeast <i>Saccharomyces cerevisiae</i> ," <i>Mol. Cell. Biol.</i> 7:2087-2096 (1987).
	AS	<u>40</u>	Sauer, B. and Henderson, N., "The cyclization of linear DNA in <i>Escherichia coli</i> by site-specific recombination," <i>Gene</i> 70:331-341 (1988).
	AT	<u>40</u>	Sauer, B. and Henderson, N., "Cre-stimulated recombination at <i>loxP</i> -containing DNA sequences placed into the mammalian genome," <i>Nucl. Acids Res.</i> 17:147-161 (1989).

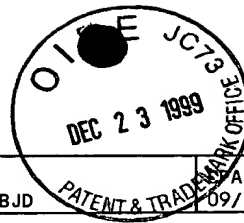
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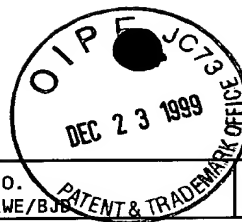
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	AO						Yes No
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## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>41</u>	Sauer, B., "Manipulation of Transgenes by Site-Specific Recombination: Use of Cre Recombinase," <i>Meth. Enzymol.</i> 225:890-900 (1993).
	AS	<u>41</u>	Sauer, B., "Inducible Gene Targeting in Mice Using the Cre/lox system," <i>Methods</i> 14:381-392 (April 1998).
	AT	<u>41</u>	Segall, A. M. and Nash, H. A., "Synaptic intermediates in bacteriophage lambda site-specific recombination: integrase can align pairs of attachment sites," <i>EMBO J.</i> 12:4567-4576 (1993).

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	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

st	AR	42	Sheffield, P. <i>et al.</i> , "Overcoming Expression and Purification Problems of RhoGDI Using a Family of "Parallel" Expression Vectors," <i>Prot. Expr. Purif.</i> 15:34-39 (February 1999).
sey	AS	42	Smith, A. J. H., <i>et al.</i> , "A site-directed chromosomal translocation induced in embryonic stem cells by Cre-ToxP recombination," <i>Nat. Gen.</i> 9:376-385 (April 1995).
st	AT	42	Thompson, J. F., <i>et al.</i> , "Mutations in an Integration Host Factor-Binding Site: Effect on Lambda Site-Specific Recombination and Regulatory Implications," <i>J. Bacteriol.</i> 168:1343-1351 (1986).

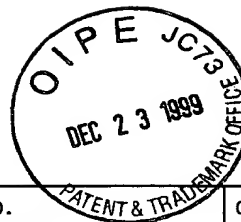
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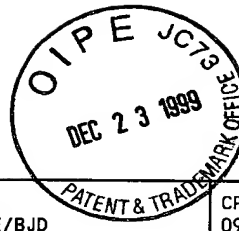
<i>sf</i>	AR	<u>43</u>	Wierzbicki, A., <i>et al.</i> , "A Mutational Analysis of the Bacteriophage P1 Recombinase Cre," <i>J. Mol. Biol.</i> 195:785-794 (1987).
<i>as</i>	AS	<u>43</u>	Winoto, A., <i>et al.</i> , "Directional Control of Site-specific Recombination by Bacteriophage $\lambda$ ," <i>J. Mol. Biol.</i> 192:677-680 (1986).
<i>sf</i>	AT	<u>43</u>	Zhang, Y. <i>et al.</i> , "A new logic for DNA engineering using recombination in <i>Escherichia coli</i> ," <i>Nat. Genet.</i> 20:123-128 (October 1998).

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DATE CONSIDERED

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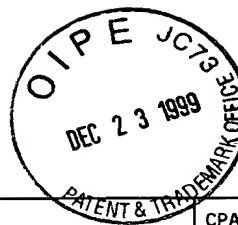
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	AR	<u>44</u>	Abremski, K., and Hoess, R., "Bacteriophage P1 Site-specific Recombination - Purification and Properties of the Cre Recombinase Protein," <i>J. Biol. Chem.</i> 259:1509-1514 (1984).
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	AT	<u>44</u>	Babineau, D. <i>et al.</i> , "The FLP Protein of the 2-micro Plasmid of Yeast," <i>J. Biol. Chem.</i> 260:12313-12391 (1985).

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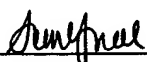
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	AP						Yes No

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	AR	<u>45</u>	Bloch, C.A., <i>et al.</i> , "Purification of <i>Escherichia coli</i> Chromosomal Segments without Cloning," <i>Biochem. Biophys. Res. Comm.</i> 223:104-111 (1996).
	AS	<u>45</u>	Bubeck, P., <i>et al.</i> , "Rapid cloning by homologous recombination <i>in vivo</i> ," <i>Nucl. Acids Res.</i> 21:3601-3602 (1993).
	AT	<u>45</u>	Chatterjee, P.K., and Coren, J.S., "Isolating large nested deletions in bacterial and P1 artificial chromosomes by <i>in vivo</i> P1 packaging of products o Cre-catalysed recombination between the endogenous and a transposed <i>loxP</i> site," <i>Nucl. Acids Res.</i> 25:2205-2212 (1997).

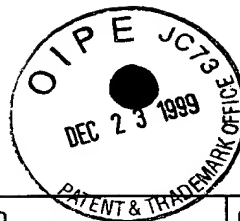
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<i>slf</i>	AR	<u>46</u>	Cox, M.M., "The FLP protein of the yeast 2- $\mu$ m plasmid: Expression of a eukaryotic genetic recombination system in <i>Escherichia coli</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 80:4223-4227 (1983).
<i>slf</i>	AS	<u>46</u>	Degryse, E., "In vivo intermolecular recombination in <i>Escherichia coli</i> : application to plasmid constructions," <i>Gene</i> 170:45-50 (1996).
<i>slf</i>	AT	<u>46</u>	Francia, M.V., <i>et al.</i> , "Gene Integration in the <i>Escherichia coli</i> Chromosome Mediated by Tn21 Integrase (Int21)," <i>J. Bacteriol.</i> 178:894-898 (February 1996).

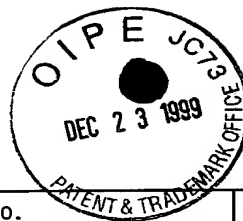
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## U.S. PATENT DOCUMENTS

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## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
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	AN						Yes No
	AO						Yes No
	AP						Yes No

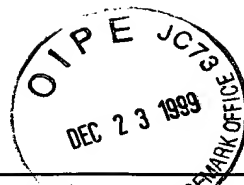
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

<i>AS</i>	AR	<u>47</u>	Glasgow, A.C., <i>et al.</i> , "DNA-binding Properties of the Hin Recombinase," <i>J. Biol. Chem.</i> 264:10072-10082 (1989).
<i>AS</i>	AS	<u>47</u>	Guo, F., <i>et al.</i> , "Asymmetric DNA bending in the Cre- <i>loxP</i> site-specific recombination synapse," <i>Proc. Natl. Acad. Sci. USA</i> 96:7143-7148 (1999).
<i>AT</i>	AT	<u>47</u>	Hoess, R.H., <i>et al.</i> , "P1 site-specific recombination: Nucleotide sequence of the recombining sites," <i>Proc. Natl. Acad. Sci. USA</i> 79:3398-3402 (1982).

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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.





FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
0942.2850004/RWE/BJDCPA OF APPLICATION NO.  
09/177,387APPLICANT  
HARTLEY *et al.*FILING DATE  
October 23, 1998GROUP  
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
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	AN						Yes No
	AO						Yes No
	AP						Yes No

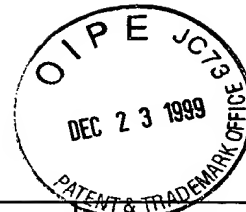
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

28	AR	48	Hoess, R.H., <i>et al.</i> , "Mechanism of Strand Cleavage and Exchange in the Cre-lox Site-specific Recombination System," <i>J. Mol. Biol.</i> 181:351-362 (1985).
29	AS	48	Hoess, R., <i>et al.</i> , "Formation of small circular DNA molecules via an in vitro site-specific recombination system," <i>Gene</i> 40:325-329 (1985).
29	AT	48	Hoogenboom, H.R., <i>et al.</i> , "Multi-subunit proteins on the surface of filamentous phage: methodologies for displaying antibody (Fab) heavy and light chains," <i>Nucl. Acids Res.</i> 19:4133-4137 (1991).

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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
0942.2850004/RWE/BJD

CPA OF APPLICATION NO.  
09/177,387

APPLICANT  
HARTLEY *et al.*

FILING DATE  
October 23, 1998

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## U.S. PATENT DOCUMENTS

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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>49</u>	Lafontaine, D., and Tollervey, D., "One-step PCR mediated strategy for the construction of conditionally expressed and epitope tagged yeast proteins," <i>Nucl. Acids Res.</i> 24:2469-2472 (1996).
	AS	<u>49</u>	Medberry, S.L., <i>et al.</i> , "Intra-chromosomal rearrangements generated by Cre-lox site-specific recombination," <i>Nucl. Acids Res.</i> 23:485-490 (1995).
	AT	<u>49</u>	Oliner, J.D., <i>et al.</i> , "In vivo cloning of PCR products in <i>E. coli</i> ," <i>Nucl. Acids Res.</i> 21:5192-5197 (1993).

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DATE CONSIDERED 3/1/00

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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 0942.2850004/RWE/BJD	PATENT APPLICATION NO. 09/177,387
	APPLICANT HARTLEY <i>et al.</i>	
	FILING DATE October 23, 1998	GROUP 1636

U.S. PATENT DOCUMENTS							
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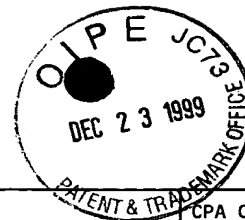
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	50	Osborne, B.I., <i>et al.</i> , "A system for insertional mutagenesis and chromosomal rearrangement using the Ds transposon and Cre-lox," <i>Plant J.</i> 7:687-701 (1995).
AS	50	Senecoff, J.F., <i>et al.</i> , "DNA Recognition by the FLP Recombinase of the Yeast 2 $\mu$ Plasmid - A Mutational Analysis of the FLP Binding Site," <i>J. Mol. Biol.</i> 201:405-421 (1988).
AT	50	Sternberg, N., <i>et al.</i> , "Site-specific Recombination and Its Role in the Life Cycle of Bacteriophage P1," <i>Cold Spring Harbor Symp. Quant. Biol.</i> 45:297-309 (1981).

EXAMINER: <i>Demphal</i>	DATE CONSIDERED 3/1/02
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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0942.2850004/RWE/BJDCPA OF APPLICATION NO.  
09/177,387APPLICANT  
HARTLEY *et al.*FILING DATE  
October 23, 1998GROUP  
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	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

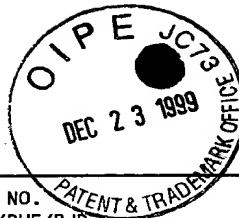
	AR	<u>51</u>	Sternberg, N., <i>et al.</i> , "Bacteriophage P1 <i>cre</i> Gene and its Regulatory Region," <i>J. Mol. Biol.</i> 187:197-212 (1986).
	AS	<u>51</u>	Storck, T., <i>et al.</i> , "Rapid construction in yeast of complex targeting vectors for gene manipulation in the mouse," <i>Nucl. Acids Res.</i> 24:4594-4596 (1996).
	AT	<u>51</u>	Strathmann, M., <i>et al.</i> , "Transposon-facilitated DNA sequencing," <i>Proc. Natl. Acad. Sci. USA</i> 88:1247-1250 (1991).

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DATE CONSIDERED

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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 0942.2850004/RWE/BJD	CPA OF APPLICATION NO. 09/177,387
	APPLICANT HARTLEY <i>et al.</i>	
	FILING DATE October 23, 1998	GROUP 1636

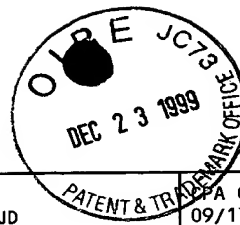
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
<i>sh</i>	AR	<u>52</u>	Thorpe, H.M., and Smith, M.C.M., "In vitro site-specific integration of bacteriophage DNA catalyzed by a recombinase of the resolvase/invertase family," <i>Proc. Natl. Acad. Sci. USA</i> 95:5505-5510 (May 1998).
<i>sy</i>	AS	<u>52</u>	Wang, G., <i>et al.</i> , "pDUAL: A transposon-based cosmid cloning vector for generating nested deletions and DNA sequencing templates in vivo," <i>Proc. Natl. Acad. Sci. USA</i> 90:7874-7878 (1993).
<i>sh</i>	AT	<u>52</u>	Wasserman, S.A., <i>et al.</i> , "The helical repeat of double-stranded DNA varies as a function of catenation and supercoiling," <i>Nature</i> 334:448-450 (1988).

EXAMINER <i>Amphal</i>	DATE CONSIDERED 3/1/00
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FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
0942.2850004/RWE/BJDPATENT & TRADEMARK OFFICE  
PCT APPLICATION NO.  
09/177,387APPLICANT  
HARTLEY *et al.*FILING DATE  
October 23, 1998GROUP  
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
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	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

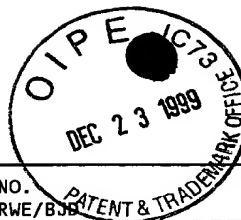
	AR	<u>53</u>	Wild, J., <i>et al.</i> , "A broad-host-range in vivo pop-out and amplification system for generating large quantities of 50- to 100-kb genomic fragments for direct DNA sequencing," <i>Gene</i> 179:181-188 (1996).
	AS	<u>53</u>	Wild, J., <i>et al.</i> , "Targeting and retrofitting pre-existing libraries of transposon insertions with <i>FRT</i> and <i>oriV</i> elements for in-vivo generation of large quantities of any genomic fragment," <i>Gene</i> 223:55-66 (1998).
	AT	<u>53</u>	Yanisch-Perron, C., <i>et al.</i> , "Improved M13 phage cloning vectors and host strains: nucleotide sequences of the M13mp18 and pUC19 vectors," <i>Gene</i> 33:103-119 (1985).

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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
0942.2850004/RWE/BJSCPA OF APPLICATION NO.  
09/177,387APPLICANT  
HARTLEY *et al.*FILING DATE  
October 23, 1998GROUP  
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## U.S. PATENT DOCUMENTS

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	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>54</u>	Yoon, Y.G., <i>et al.</i> , "Cre/loxP-mediated in vivo excision of large segments from yeast genome and their amplification based on the 2 $\mu$ m plasmid-derived system," <i>Gene</i> 223:67-76 (1998).
	AS	<u>54</u>	York, D., <i>et al.</i> , "Simple and efficient generation <i>in vitro</i> of nested deletions and inversions: Tn5 intramolecular transposition," <i>Nucl. Acids Res.</i> 26:1927-1933 (1998).
	AT	<u>54</u>	Zhu, X.-D., <i>et al.</i> , "Homology Requirements for Ligation and Strand Exchange by the FLP Recombinase," <i>J. Biol. Chem.</i> 270:11646-11653 (1995).

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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449  FIRST SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 0942.2850004/RWE/BJD	APPLICATION NO. CPA of 09/177,387
	APPLICANT HARTLEY <i>et al.</i>	
	FILING DATE October 23, 1998	GROUP 1636

U.S. PATENT DOCUMENTS							
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<i>SH</i>	AK2	5,837,242	11/17/1998	Holliger <i>et al.</i>	424	436.1	05/14/1996

FOREIGN PATENT DOCUMENTS							
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	AM						Yes No
	AN						Yes No
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<i>SH</i>	AP3	WO 91/02801	03/07/1991	WIPO - PCT			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

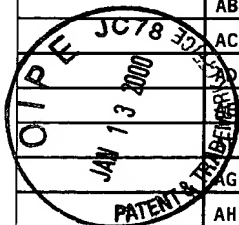
<i>SH</i>	AR	55	Sternberg, N., "Bacteriophage P1 cloning system for the isolation, amplification, and recovery of DNA fragments as large as 100 kilobase pairs," <i>Proc. Natl. Acad. Sci. USA</i> 87:103-107 (1990).
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EXAMINER <i>Shuefied</i>	DATE CONSIDERED 3/1/00
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	



FORM PTO-1449  <u>FIRST SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0942.2850004/RWE/BJD	APPLICATION NO. CPA of 09/177,387
	APPLICANT HARTLEY <i>et al.</i>	
	FILING DATE October 23, 1998	GROUP 1636

U.S. PATENT DOCUMENTS							
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<i>JS</i>	AA3	6,010,884	01/04/2000	Griffiths <i>et al.</i>	435	69.7	05/29/1996
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FOREIGN PATENT DOCUMENTS							
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449  FOURTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 0942.2850004/RWE/BJD	APPLICATION NO. 09/177,387
APPLICANT HARTLEY <i>et al.</i>		
FILING DATE October 23, 1998		GROUP 1636

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
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<i>SH</i>	AB3	4,743,546	05/10/1988	Backman <i>et al.</i>	435	108	02/13/1985
<i>SH</i>	AC3	5,227,288	07/13/1993	Blattner, F.R.	435	6	10/01/1990
<i>SH</i>	AD3	5,354,668	10/11/1994	Auerbach, J.I.	435	91.1	10/15/1993
<i>SH</i>	AE3	5,470,727	11/28/1995	Mascarenhas <i>et al.</i>	435	472.3 473	12/21/1993
<i>SH</i>	AF3	5,614,389	03/25/1997	Auerbach, J.I.	435	92.2	09/26/1995
<i>SH</i>	AG3	5,733,733	03/31/1998	Auerbach, J.I.	435	6	02/01/1996
<i>SH</i>	AH3	5,989,872	11/23/1999	Luo <i>et al.</i>	435	91.2	08/12/1997
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FOREIGN PATENT DOCUMENTS							
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	AM						Yes No
	AN						Yes No
	AO						Yes No
<i>SH</i>	AP3	WO 97/06265	02/20/1997	WIPO PCT			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	55	
<i>SH</i>	AS	55	Andrews, B.J., <i>et al.</i> , "The FLP Recombinase of the 2 $\mu$ Circle DNA of Yeast: Interaction with Its Target Sequences," <i>Cell</i> 40:795-803 (1985).
<i>SH</i>	AT	55	Andrews, B.J., <i>et al.</i> , "Interaction of the FLP Recombinase of the <i>Saccharomyces cerevisiae</i> 2 $\mu$ Plasmid with Mutated Target Sequences," <i>Mol. Cell. Biol.</i> 6:2482-2489 (1986).

EXAMINER <i>Sanjwal</i>	DATE CONSIDERED 5/20/00
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	

FORM PTO-1449


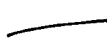
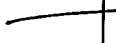
## FOURTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
0942.2850004/RWE/BJDAPPLICATION NO.  
09/177,387APPLICANT  
HARTLEY *et al.*FILING DATE  
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>56</u>	Bernard, P., "Positive Selection of Recombinant DNA by CcdB," <i>BioTechniques</i> 21:320-323 (August 1996).
	AS	<u>56</u>	Jaffé, A., <i>et al.</i> , "Effects of the <i>ccd</i> Function of the F Plasmid on Bacterial Growth," <i>J. Bacteriol.</i> 163:841-849 (1985).
	AT	<u>56</u>	Nash, H.A., "Integrative Recombination of Bacteriophage Lambda DNA <i>In Vitro</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 72:1072-1076 (1975).

EXAMINER DATE CONSIDERED  
5/20/00

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FORM PTO-1449  FOURTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT		ATTY. DOCKET NO. 0942.2850004/RWE/BJD		APPLICATION NO. 09/177,387	
APPLICANT HARTLEY <i>et al.</i>		FILING DATE October 23, 1998		GROUP 1636	

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	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
<i>slg</i>	AR	<u>57</u>	Reed, R.R., "Transposon-Mediated Site-Specific Recombination: A Defined in Vitro System," <i>Cell</i> 25:713-719 (1981).
<i>slg</i>	AS	<u>57</u>	Reed, R.R., and Grindley, N.D.F., "Transposon-Mediated Site-Specific Recombination in Vitro: DNA Cleavage and Protein-DNA Linkage at the Recombination Site," <i>Cell</i> 25:721-728 (1981).
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EXAMINER <i>Sampuel</i>	DATE CONSIDERED <i>5/20/00</i>
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